SAN BERNARDINO COUNTY MUSEUM

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News Release

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For release: Immediately

Sabre-toothed cat fossils discovered in Las Vegas

An ancient and deadly hunter, itself the focus of a hunt lasting nearly a century, has finally come to light in the Nevada desert. Fossils of the extinct sabre-toothed cat, famed icon of the Ice Ages, have at last been discovered in the Tule Springs region north of Las Vegas, Nevada.

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Paleontologists from the San Bernardino County Museum in Redlands, California reported the exciting new finds this week. The California museum team has been combing the upper Las Vegas Wash for fossils from the Pleistocene Epoch – the "Ice Ages" – for over a decade, finding hundreds of sites and thousands of fossils. But sabre-toothed cats – scientific name *Smilodon fatalis* – always kept a low profile. Until now.

"We're ecstatic," exclaims Kathleen Springer, Senior Curator for the San Bernardino County Museum and lead scientist for studies in the upper Las Vegas Wash. "We've been saying for years that these critters were out here, somewhere. It was just a matter of time until we found one."

The initial discovery was made in 2003, during a survey conducted by scientists from the California museum that identified over 400 previously-unknown fossil sites in the upper Las Vegas Wash. The find wasn't visibly spectacular – two broken limb bones eroding out of a small rise in the desert – and the identity of the fossils was obscured by surrounding sediment. In 2008, under a research grant from the Southern Nevada District Office of the Bureau of Land Management, San Bernardino County Museum researchers began collecting and curating the fossils found during their earlier surveys. The sabre-tooth site was relocated in June of this year, and the fossils have just finished being cleaned, stabilized, and identified.

"I hate to say, 'We hit the jackpot', this being Vegas – but we did!" jokes paleontologist Eric Scott, Curator of Paleontology for the San Bernardino County Museum and discoverer of the fossils.

The new discoveries date to approximately 15,000 years ago, according to radiocarbon analyses. "We're establishing a tight radiocarbon chronology for the entire Tule Springs region," says Springer, "and that work allows us to place individual fossils into our temporal framework. This is essential for understanding how living communities responded to environmental changes through time."

Smilodon fatalis was a lion-sized predator with long, knife-like canine teeth. Scientists interpret sabre-toothed cats to have likely been ambush predators, hunting their prey through stealth and then disemboweling them with their canine teeth. The species died out at the end of the Pleistocene Epoch, eleven thousand years ago, and left no descendants.

Scientists and scholars have combed the desert north of Las Vegas, Nevada since the early 1900s, but none ever succeeded in finding sabre-toothed cats, which are frequently but incorrectly termed "tigers". New York's American Museum of Natural History, California's Southwest Museum and the University of California, Berkeley, and Nevada's own Nevada State Museum have all visited Tule Springs in expeditions dating from before 1920 through the early 1960s, and all made fossil collections. Bones and teeth of mammoths, camels, horses, and bison found their way into museum collections across the country. But sabre-toothed cats proved elusive.

"Meat-eaters are generally uncommon in the fossil record," explains Scott. "In living communities, carnivores are far outnumbered by plant-eaters. The same holds true for past ecosystems. This makes fossil remains of extinct carnivores very rare and special – and very tough to find."

The ongoing research in the Tule Springs region goes beyond just finding fossils, however. Funding from the Bureau of Land Management supports a comprehensive, integrative approach to Ice Age studies that emphasizes the geological age and context of the fossils. "We're building on earlier studies," says Springer, "and expanding what they learned. We're seeing clear signals of regional responses to climatic changes through time, preserved here in the rock record, which have never been recognized before. The fossils are part of that picture, but there's so much more going on here."

The addition of sabre-toothed cats to the Tule Springs bestiary comes at a perfect time. This year marks the 50-year anniversary of the "Big Dig", a massive interdisciplinary expedition at Tule Springs that explored the prehistory of the region at a scale never before attempted. On December 8th, the Nevada State Museum will

celebrate this anniversary with an all-day event, "Tule Springs 'Big Dig': Celebrating 50 Years of Exploration". The event will showcase new exhibits, produced by the San Bernardino County Museum and funded by the Bureau of Land Management, which present highlights of past and current studies at Tule Springs. Springer and Scott will each present talks on the paleontology and geology of the region.

"I expect," says Scott, "we may talk a bit about sabre-tooth cats, as well."

The San Bernardino County Museum is at the California Street exit from Interstate 10 in Redlands. For more information, visit www.sb.countymuseum.org. The museum is accessible to persons with disabilities. If assistive listening devices or other auxiliary aids are needed in order to participate in museum exhibits or programs, requests should be made through Museum Visitor Services at least three business days prior to your visit. Visitor Services' telephone number is 909-307-2669 ext. 229 or (TDD) 909-792-1462.

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